

F1  
having immobilized thereon about  $6 \times 10^{-17}$  to  $6 \times 10^{-16}$  nmol/nm<sup>2</sup> of a capture polynucleotide which is capable of hybridizing to the target nucleic acid, and wherein said porous substrate is about 1 mm to 20 mm thick.

Sub G9  
F2  
50. (Three Times Amended) A kit for capturing a target nucleic acid from a sample comprising:

- a) a flow-through device according to Claims 1, 58, 59 or 60; and
- b) a capture polynucleotide capable of being covalently attached to the porous substrate.

Sub G10  
F3  
52. (Three Times Amended) A kit for capturing a target nucleic acid from a sample comprising:

- a) a flow-through device according to Claims 1, 58, 59 or 60; and
- b) means for generating a capture polynucleotide which is capable of hybridizing to the target nucleic acid and which is capable of being covalently attached to the porous substrate.

58. (Twice Amended) A flow-through device for capturing a target nucleic acid comprising a three-dimensional porous macroscopic network having immobilized thereon a capture polynucleotide which is capable of hybridizing to the target nucleic acid, and wherein said porous substrate is composed of a polymeric material selected from the group consisting of polyethylene, polystyrene, polycarbonate and polypropylene.

F4  
59. (Twice Amended) A flow-through device for capturing a target nucleic acid, comprising a three-dimensional porous substrate having covalently immobilized thereon a capture polynucleotide which is capable of hybridizing to the target nucleic acid, and wherein said porous substrate, prior to immobilization of the capture polynucleotide, is activated by plasma activation.

60. (Twice amended) A flow-through device for capturing a target nucleic acid, comprising a three-dimensional porous substrate composed of a polymeric material selected

F4 from the group consisting of polyethylene, polystyrene, polycarbonate and polypropylene and having an average pore size of about 10  $\mu\text{m}$  to about 100  $\mu\text{m}$  and a porosity in the range of about 25 to 80% and having immobilized thereon a capture polynucleotide capable of hybridizing to the target nucleic acid.

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